



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

A NEW VARIABLE STAR.

By TORVALD KÖHL.

The star No. 121 in BIRMINGHAM's Catalogue, = No. 144 in CHANDLER'S Catalogue of red stars,—position for 1875.0: $5^{\text{h}} 38^{\text{m}} 12^{\text{s}}.47 (+3^{\circ}.57)$, $+20^{\circ} 38' 24''.9 (+1''.9)$ —has shown a remarkable change in brightness. It has formerly been estimated as a star of the 7.5th magnitude (B. D. has 7.7, Berlin A. G. Catalogue has 7.2). DREYER observed it at Dublin from 1875 to 1879, and I at Odder from 1887 to 1893, without seeing any change of light in this orange-red star until on January 22, 1898, when I was surprised at the faintness of the star, which is now of about the 9th magnitude, and thus it has also been seen on the dates January 27 and 31 and February 1, 1898.

ODDER, DENMARK, February 6, 1898.

 MAGNIFYING RATIOS OF EWING SEISMOGRAPHS
 OF THREE COMPONENTS, AND OF THE
 DUPLEX-PENDULUM SEISMOGRAPHS.

By C. D. PERRINE.

In the following deductions the pen and plate are assumed to move with respect to the steady-point, and the motions of each are considered separately. In the reduction of the recorded displacements given by the pens upon the smoked glass plate, to the actual displacement of the Earth particle, there are several circumstances to be taken into account. In the case of the two horizontal components there are four considerations, viz:—

A.—The ratio of the pens, *i. e.* the distance from the point of the pen to the steady-point, divided by the distance from the steady-point to the point of support.

B.—The angle which the meridian of the pens makes with the true meridian of the place. If they coincide, there is no factor to be introduced on that account.

C.—The angle which a radius of the circular plate drawn through the point of the pen makes with a line drawn through